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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/680,109	10/08/2003	Shinji Ohta	243659US6	4453

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OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

RIVERO, MINERVA

ART UNIT PAPER NUMBER

2627

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/680,109	Applicant(s) OHTA ET AL.	
	Examiner Minerva Rivero	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

*1-11*

3. Claims ~~1, 5 and 9~~ are rejected under 35 U.S.C. 102(e) as being anticipated by Kato *et al.* (US Patent 6,928,041, hereinafter Kato).

4. Regarding claims 1, 5 and 9, Kato discloses a method and a disk drive comprising:

an optical head for emitting a laser beam so as to illuminate a disk-shaped storage medium and detecting light reflected from the disk-shaped storage medium thereby writing or reading data on or from the disk-shaped storage medium, grooves serving as recording tracks being formed in a wobbling fashion on the disk-shaped storage medium, pre-pits being formed on lands between adjacent grooves (Col. 4, Lines 15-24);

a push-pull signal generator for generating a push-pull signal from reflected-light information detected by the optical head (Col. 5, Lines 40-46);

an amplitude variation signal generator for generating and outputting a fundamental amplitude variation signal indicating the fundamental amplitude variation of the push-pull signal (*binarized push-pull signal*, Col. 5, Lines 45-46);

an offset signal generator for generating an offset signal (Col 8, Lines 41-52; *threshold signal*, Col. 5, Line 67 – Col. 6, Line 6);

a reference signal generator for generating a reference signal by adding the offset signal generated by the offset signal generator to the fundamental amplitude variation signal generated by the amplitude variation signal generator (Col. 6, Lines 16-18; Col 8, Lines 41-52);

and a pre-pit detector for comparing the push-pull signal with a reference signal and outputting a comparison result as a pre-pit detection signal (Col. 5, Lines 12-16; *pre-pit detection signal*, Col. 9, Lines 53-56).

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5. Regarding claims 2 and 6, Kato discloses the disk-shaped storage medium represents, using the pre-pits, address information indicating an address on the disk; and the disk drive further comprising an address decoder for acquiring address information represented by the pre-pits, from the output of the pre-pit detector (*position*, Col. 5, Lines 17-23).

6. Regarding claims 3, 7 and 10, discloses the fundamental amplitude variation signal is a signal reflecting at least the amplitude variation of the push-pull signal due to wobbling of grooves and due to noise (Col. 8, Lines 27-36).

7. Regarding claims 4, 8 and 11, discloses the amplitude variation signal generator includes

a charging circuit for charging a capacitor in response to an increase in amplitude of the input push-pull signal, in a peak holding manner with a predetermined time constant (*peak-hold and sampling circuit*, Col. 6, Lines 16-29; *delay circuit delays the binary signal for a certain time*, Col. 6, Lines 16-29; *holding detected value during a certain time period*, Col. 6, Lines 16-29); and

a discharging circuit for discharging the capacitor such that the charged voltage of the capacitor falls down with a predetermined time constant (*holding detected value during a certain time period*, Col. 6, Lines 16-29);

whereby a signal corresponding to the charged level of the capacitor is output as the fundamental amplitude variation signal (*binary signal output*, Col. 6, Lines 16-29).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Minamino *et al.* (US Patent 7,027,374) disclose an optical disk having wobble signals representing control information.

Ishibashi *et al.* (US 2002/0196723) discloses an optical disk with track grooves divided into sub-blocks.

Minamino *et al.* (US Patent 6,674,700) discloses an optical disk having sub-blocks and sub-block identification marks.

Adachi (US Patent 6,836,458) discloses a method of generating a pre-pit detection signal in an optical recording apparatus.

Kato *et al.* (US Patent 6,801,488) discloses a pre-pit detecting apparatus for an optical recording medium.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MR 6/2/06



**WAYNE YOUNG**  
**SUPERVISORY PATENT EXAMINER**